

REMARKS

In the interest of compact prosecution, Applicants have amended Claim 1 to include the limitations of claims 1, 2, 3, 4, 5, 8, 11, 12, and 13. Accordingly, no new matter under 35 U.S.C. §132 has been introduced by this claim amendment. Claims 2, 3, 4, 5, 8, 11, 12, and 13 have been cancelled in view of the amendment of Claim 1. Applicants reserve the right to pursue such now cancelled claims in a future filed continuation application.

Rejections under 35 U.S.C. §102(b)

The Examiner has rejected claims 1, 3-4, and 31 under 35 U.S.C. §102(b) as being anticipated by Jo (1999). Applicants respectfully traverse this rejection for the following reason.

According to the Examiner, "Jo teaches that many different complex structures can be created bu[t] does not teach specifics of how they can be created or what they will include" (page 4, paragraph 5 of the Office Action). Thus, Jo cannot be fairly said to anticipate the claimed invention because Jo does not teach each and every element of the claimed invention for want of "specifics". Accordingly, Applicants respectfully request this rejection be withdrawn.

Rejections under 35 U.S.C. §102(a)

The Examiner has rejected claims 1-3, 5-10, 18-24, 31, and 35-44 under 35 U.S.C. §102(a) as being anticipated by Jo (1999). Applicants respectfully traverse this rejection for the following reason.

According to the Examiner, "Chan does no[t] teach the microfluidic device being made of two layers of elastomeric material or additional features that might be included in the device" (page 7, paragraph 6 of the Office Action). Thus, Chan cannot be fairly said to anticipate the claimed invention because Chan does not teach each and every element of the claimed invention for want of "two layers of elastomeric material or additional features that might be included in the device". Accordingly, Applicants respectfully request this rejection be withdrawn.

Rejections under 35 U.S.C. §103(a)

The Examiner has rejected claims 2, 5-30 and 32-59 as being unpatentable over Jo as applied to claims 1, 3-4, and 31 in the Office Action, and further in view of Unger or Duffy and Chan, Figeys (either 1998 Analytical Chemistry article), Parce (US 5,885,470), Ullman or Xue. Applicants respectfully traverse this rejection for the following reason.

Chan, Parce, Figeys, Xue, or Ullman do not fairly discloses or suggest making the two elastomeric layers of the claimed invention, nor suggest any problems exist with their single layer devices. Moreover, neither Duffy, Unger or Jo, fairly disclose or suggest making microfluidic devices for introducing samples into mass spectrometers or other analytical devices, or identify a need to apply their teachings to solve problems in the area of mass spectrometry front-end devices. Hence, nowhere in the Examiner's combination is motivation to combine the references to produce Applicants' claimed invention. Indeed, the Examiner's claimed invention, absent a motivation to combine, is merely a product of hindsight reconstruction of Applicants claimed invention. It is well settled that hindsight reconstruction is an inappropriate basis for making an obviousness rejection under 35 U.S.C. §103(a). Accordingly, Applicants respectfully request withdrawal of this rejection.

The Examiner has rejected claims 4, 11-17, 25-30, 32-34 and 45-49 as being unpatentable over Chan as applied to claims 1-3, 5-10, 18-24, 31, and 35-44 in the Office Action, and further in view of Jo, Unger or Duffy and Figeys (either 1998 Analytical Chemistry article), Parce (US 5,885,470), Ullman or Xue. Applicants respectfully traverse this rejection for the following reason.

Chan, Parce, Figeys, Xue or Ullman do not fairly discloses or suggest making the two elastomeric layers of the claimed invention, nor suggest any problems exist with their single layer devices. Moreover, neither Duffy, Unger or Jo, fairly disclose or suggest making microfluidic devices for introducing samples into mass spectrometers or other analytical devices, or identify a need to apply their teachings to solve problems in the area of mass spectrometry front-end devices. Hence, nowhere in the Examiner's

combination is motivation to combine the references to produce Applicants' claimed invention. Indeed, the Examiner's claimed invention, absent a motivation to combine, is merely a product of hindsight reconstruction of Applicants claimed invention. It is well settled that hindsight reconstruction is an inappropriate basis for making an obviousness rejection under 35 U.S.C. §103(a). Accordingly, Applicants respectfully request withdrawal of this rejection.

CONCLUSION

Applicants believe the claim is now in condition for allowance for the foregoing reasons. Accordingly, Applicants respectfully request a Notice of Allowance. If, in the Examiner's opinion, a telephone conference may be helpful, Applicants' counsel may be contacted at the number below.

Very truly yours,



Gregory L. Heinkel
Reg. No. 44,755

Fluidigm Corporation
7100 Shoreline Court
So. San Francisco, CA, 94080
(650) 266-6036
(650) 871-7195

MARKED-UP COPY OF AMENDMENT

In the claims:

1. A microfluidic device comprising:
 - (e) a first elastic layer;
 - (f) a second elastic layer on top of said first elastic layer, said second elastic layer comprising a pump and valve system for controlling the flow of fluid within said fluid flow channel;
 - (g) a fluid flow channel within said elastic layer, said flow channel being about 500 μ m or less; and,
 - (h) a means for providing a sample of fluid from said fluid flow channel to a[n analytical device]mass spectrometer, said sample providing means comprising a capillary having at least a portion thereof being located within said fluid flow channel and being heretically sealed with said flow channel, said capillary being in operatively interconnected to said mass spectrometer for introducing said sample fluid from said fluid flow channel into said mass spectrometer for analysis.